

Alerts, Notices, and Case Reports

The Placenta and Cultural Values

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HEALTH BELIEFS AND BEHAVIORS, expressing deeply held values, are embedded in the cultures of patients. As the demography of the United States continues to change, health care professionals will have more and more opportunities to serve patients from various ethnic groups. A goal of health care professionals therefore should be to attain cultural competency. To reach this goal, clinicians must provide care based on their knowledge of cultures and respect for patients of different ethnicities. To give culturally competent care, health care professionals will need to be familiar with patients' world views—particularly regarding how illness, healers, social relations, and the human body are considered within a particular culture.

In all cultures, the human body has similar form and function; each culture, however, assigns different cultural meanings and values to parts of the body. A meaning assigned to a body part in one culture may not have an equivalent in the culture of the health care professional, which may result in a misunderstanding. For example, the human placenta has little cultural value in contemporary Western biomedicine and is usually discarded as waste immediately after childbirth. Recently, in our institution, we observed another view of the placenta—one attributing significant cultural meaning to its use and disposal. The patient's beliefs were acknowledged prenatally and incorporated into her birth plan. A breakdown in communication occurred, however. Eventually, an innovative solution was proposed, and it allowed the patient's original request to be honored.

Report of Case

A 23-year-old gravida 3, para 2 (G3,P2) Native American patient presented to the Obstetrics Clinic at the University of California, Davis. Throughout her prenatal course, she had been seeing a single physician provided to her in a continuity clinic. At her first prenatal visit, she requested her placenta to be returned after

delivery for ceremonial disposition. This request was acknowledged and documented in the obstetrical chart.

The patient's prenatal course was routine until 37 weeks, when she was admitted to the labor and delivery department shortly after premature rupture of the membranes. Genital lesions consistent with herpes simplex virus type 2 were noted, and a cesarean section was performed to decrease fetal exposure to the virus. The placenta was sent to the pathology department for evaluation as a surgical specimen.

The obstetrics resident who had been attending the patient was on vacation at the time of the delivery and for one week afterwards. The surgery team was aware of the patient's desire to have her placenta returned and noted this on the pathology request. The pathology resident made histological slides from a section of the placenta and stored the remainder for retrieval by the obstetrics resident. During the patient's hospitalization, several unsuccessful attempts were made to contact her resident. Because this resident could not be contacted and the placenta was not retrieved soon after delivery, it was assumed that the placenta was not wanted; the majority of it was disposed of as medical waste. Unknown to the patient, only the small surgical block of her placenta was retained.

On discharge from the hospital, the patient went to retrieve her placenta from the pathology department and learned of its destruction. She contacted the Obstetrics Clinic Advice Nurse, expressing her disappointment and concern regarding the failure of the previously arranged plan.

When the obstetrics resident returned from vacation, she learned of the disposal of the placenta. She contacted the patient to express regret that the patient's wishes had not been realized. Further conversations led to a solution acceptable to patient and physician. The specimen block maintained by pathology was subdivided, and a portion in formalin was given to the physician. The patient was given instructions regarding safe handling of the specimen; the physician then released it to the patient. A supplemental pathology report, stating that "the block had been subdivided and released to the patient at her request," was released. The portion of the surgical block that was returned to the patient served as the placenta in the cultural ceremony. Afterward, she disposed of the specimen in a way appropriate to her culture.

Discussion

The United States has experienced rapid population growth recently, particularly of immigrants from non-European countries. According to the census of 1990, the sizes of ethnic groups are increasing rapidly, especially in the western states. The Latino population had increased 53% since the 1980 census and is now

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22,354,059. The most recent census shows that the number of Asian and Pacific Islanders has increased by 108%.¹ By the year 2000, the California population will be less than 50% Caucasian, and one in four residents will be foreign-born.² In the future, physicians can expect to serve an ethnically diverse population—one composed of many ethnic groups with differing concepts of the body, explanatory models of disease, and beliefs regarding proper medical treatment.³

To better serve this diverse population of patients, physicians will need to develop cultural competency. A patient's satisfaction and compliance may depend on the physician acknowledging his or her point of view and, when possible, incorporating it into the interpretation of symptoms, the diagnosis, and the plan of treatment.

Davidson discusses how the placenta is considered in different cultures and why proper disposal assumes such cultural significance.⁴ In all cultures, pregnancy is an anxiety-provoking event. In most Western cultures, the anxiety generally ends with the delivery of the infant; the placenta is delivered without ceremony and disposed of as biological waste. For many non-Western cultures, the anxiety of pregnancy is not resolved until after proper disposal of the placenta. The placenta is not considered waste, but rather the infant's twin or double, intimately involved in the well-being of the infant, mother, and community. Its proper disposal is culturally prescribed and often involves a ceremony to insure a good outcome.

Several explanations for why the placenta assumes such importance in certain cultures have been proposed. All cultures experience the biological risks of childbirth, and the importance of delivering the placenta is recognized.⁵ In isolated communities, a retained placenta may lead to maternal hemorrhage, sepsis, and eventually death. In some cultures, the umbilical cord is not cut until after the placenta is delivered. The large veins and arteries are visible and thus strengthen the idea that the placenta is a separate life attached to the infant. If risks associated with the placenta are recognized by the culture, proper disposal could be seen as a means of decreasing the danger.

In many cultures, rituals and ceremonies are means of managing anxiety associated with the unknown. Following a series of prescribed steps in a frightening situation provides a sense of control or mastery—a way of influencing the event. *Liminal* states are times of transition and marginality in which a person is perhaps considered "neither-nor," in other words, the person is in the process of transformation from one status of being to another. Birth, puberty, marriage, and death are examples of liminal states. In most societies, rituals and ceremonies ensure the participant's safe arrival to the next stage of life. The proper treatment and disposal of the placenta, for instance, brings closure to the frightening experience of childbirth, and it resolves the liminal states in which the "unborn" becomes "human" and the "woman" becomes "mother."

The placenta may also have social importance beyond that of health. In many societies, the person designated to dispose of the placenta is defined by gender and relationship to the newborn. In the Hmong culture of

Southeast Asia, the woman may deliver her baby without assistance, but the father disposes of the placenta.⁵ If the child delivered is a girl, the placenta is buried under her parent's bed; if the child is a boy, the placenta is buried near the base of the central wooden pillar supporting the house. (The latter is a place of great honor, which reinforces the social stratification of gender roles.) "Placenta" can be translated as "jacket" in the Hmong language and is considered the first and finest clothing of the infant. The Hmong believe that after death, the soul must retrace the journeys undertaken in life until it reaches the burial place of its placental jacket. Only by putting on this protective covering can the soul safely complete the dangerous journey to be reunited with its ancestors and its eventual rebirth. The geographic site of placental burial defines the ancestral home for the clan.

In the case reported here, the patient attached significant value to her placenta and its ceremonial role in the birth event. Although she would not share with us how the placenta was to be used, the anthropological literature has many examples of the importance of placenta rituals in maintaining a safe environment for the infant, mother, and society.⁶ The physician demonstrated cultural competency and gained the patient's trust by agreeing to return the placenta, thereby acknowledging the cultural heritage of the patient. The failure in communication that resulted could have been avoided if more complete lines of communication had been maintained and emphasized. Rather than simply offering an apology alone, an innovative solution acceptable to the patient was found. The pathology department also demonstrated sensitivity and understanding by helping to resolve the patient's distress. Before the events of this case took place, neither the Departments of Pathology nor Obstetrics-Gynecology had policies addressing the possible cultural meanings of body parts. Pathology's Continuous Quality Improvement Committee, Obstetrics-Gynecology, Risk Management, and Decedent Affairs were faced with the task of developing a clear and reliable procedure to process requests for tissue return for ceremonial purposes. Fundamental to providing more sensitive care is better communication between departments and the anticipation of problems such as resident absences.

An informal survey of the experiences of 26 university departments of pathology regarding the return of tissue to patients showed that there is increasing cultural awareness (W. Birdsong, MD, Davis, California; unpublished material, January 1997). Although the time interval was not specified, eight departments noticed a larger number of requests for tissue return. Of the five departments with policies against tissue return, three made exceptions for religious or ceremonial purposes. One pathologist commented that the department requires all tissue to be returned to Navajo patients for proper burial. Fifteen departments reported that they give special instructions to patients receiving returned tissue about the proper handling of hazardous materials such as formalin. No department reported a negative medical outcome or legal ramifications as the result of returning tissue to patients.

Physicians can routinely expect to care for patients from ethnic groups differing from their own. By acknowledging our patients' cultural beliefs, learning more about them, and—when possible—incorporating them into our practice, we will be better prepared to serve this increasingly diverse population.

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Zygomycotic Gangrenous Cellulitis in a Patient with Non-Insulin Dependent Diabetes Mellitus

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ZYgomycosis is a relatively uncommon fungal infection. Most cases have been reported in association either with diabetes mellitus—usually when complicated by ketoacidosis—or in an immunocompromised host.^{1,2} Cutaneous zygomycosis may also complicate extensive soft tissue injuries that occur in a patient without an underlying medical condition.^{3,4} We describe a case of cutaneous zygomycosis following minor trauma in a patient with no underlying medical condition except for well-controlled non-insulin dependent diabetes mellitus.

(Zimhony O, Israeli E, Malnick SDH, Pansky A, Cohen P, Geltner D. Zygomycotic gangrenous cellulitis in a patient with non-insulin dependent diabetes mellitus. *West J Med* 1998; 168:192–194)

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Report of a Case

The patient, a 78-year-old man, presented with a small, blue-black bulla evolving from an erythematous nodule above the right knee. The lesion had developed over the previous six days following a shallow prick from a splinter of wood. Treatment was started with oral cephalexin (0.5 grams 4 times a day). The patient's medical history included diabetes mellitus for the last seven years. His diabetes was being treated with glibenclamide, and he had postprandial glucose values lower than 190 mg per dl.

A Gram stain of the aspirated bulla revealed a few neutrophils and scarce Gram-positive cocci in clusters; the culture was sterile. Over the subsequent four days, the patient became febrile and a minimally painful necrotic lesion developed over his right knee.

We admitted the patient to the hospital. On physical examination his temperature was 38.3°C (101°F); pulse, 90 beats per minute; and blood pressure, 150/80 mm of mercury. A superficial black necrotic lesion was noted above the right knee, the diameter of which was 10 mm. The knee itself was intact. Distal pulses were palpable. The remainder of the physical examination was unremarkable.

Results of a chest x-ray were normal. Pertinent serum laboratory results were as follows: hemoglobin, 124 grams per liter (12.4 grams per dl); leukocyte count, 10.0×10^9 (10,000 per mm³) with 80% polymorphonuclears and 7% bands; serum glucose, 9.7 mmol per liter (175 mg per dl); and glycosylated hemoglobin, 8.4% (normal, up to 7%). Renal function tests and electrolyte counts were normal. The serum albumin level was 38 grams per liter (3.8 grams per dl), and serum immunoglobulins were in the normal range. Muscle and liver enzymes were also within the normal ranges.

Intravenous cefazolin (1 gram four times a day) and clindamycin (600 mg three times a day) were begun. In the following three days, the patient remained febrile and the lesion extended proximally. A culture from the wound grew *Enterobacter cloacae*, at which time a regimen of 400 mg of ciprofloxacin intravenously two times a day and 500 mg of metronidazole four times a day were begun. Two days later, the patient appeared toxic: his temperature was 39.4°C (102.9°F), his pulse was 120 beats per minute, and the necrotic lesion extended further and deeper, involving the patella. Serum laboratory tests revealed a leukocyte count of 16.0×10^9 (16,000 per mm³) with 85% polymorphonuclears and 10% bands. A swabbed culture of the wound grew *Pseudomonas aeruginosa* and *Enterobacter cloacae*.

A diagnosis of necrotizing fasciitis was made, and extensive débridement of the knee was done, which included a tissue biopsy. The pathologic specimen (Figure 1) revealed broad nonseptate hyphae characteristic of zygomycosis. A culture of the necrotic tissue grew no fungi.

Three drugs were administered: amphotericin B, intravenously, 50 mg four times a day; ceftazidime, 1 gram three times a day; and amikacin, 500 mg twice a